

# **AIR QUALITY REGULATION IN MONTANA**

## **2011 BIOMASS BOILER OPERATOR'S SUMMIT**



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# Today's Overview



- **Montana Air Quality Regulations**
  - Air Quality Permitting
  - Fuels for Schools Projects
- **Federal Regulations Applicable in Montana**
  - Greenhouse Gas Federal Regulations
  - Boiler Federal Regulations

# Air Quality Program Authority



- **Statutory Authority**
  - Montana Clean Air Act
  - Montana Code Annotated (Title 75, Chapter 2)
- **Rules**
  - Code of Federal Regulations
  - Administrative Rules of Montana (Title 17, Chapter 8)

# Potential to Emit (PTE)



- Montana Air Quality Permits
  - MAQP/Preconstruction Permits

**PTE...briefly defined as the** maximum capacity of a facility or emitting unit, within physical and operational design, to emit a pollutant.



# Fuels for Schools



- Boiler size – do you exceed the permit threshold?
- Most MT projects have been below the permitting threshold.
- Can request permit determinations and any guidance the Department can provide.

# Boiler Emissions Comparison (tons/year)



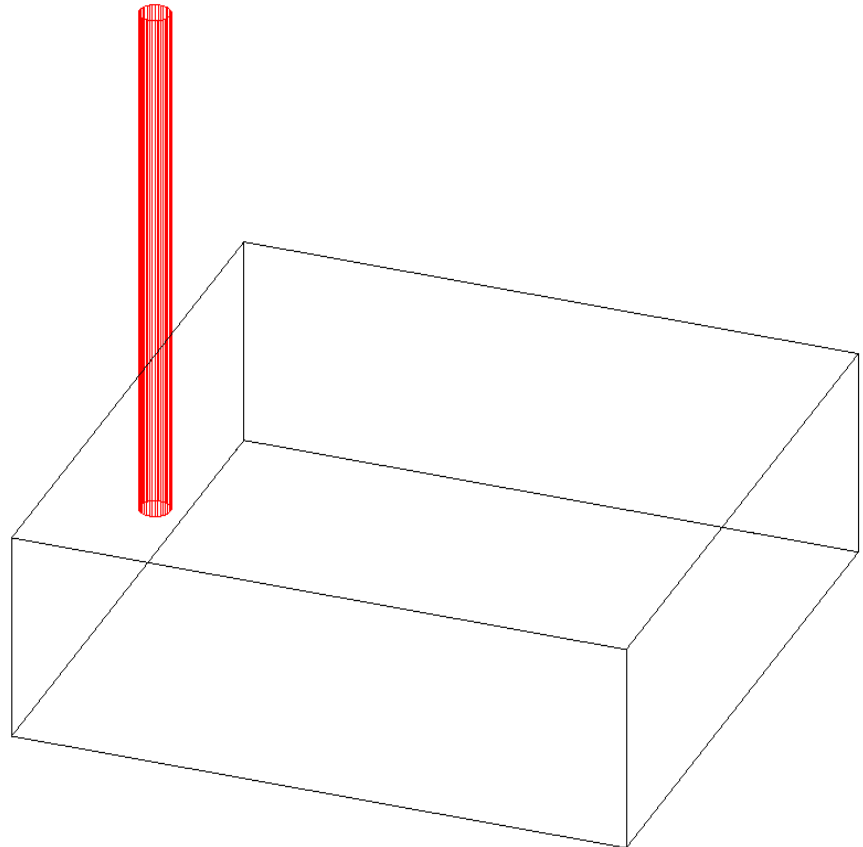
19 MMBtu/hr boiler (heat input)

Pollutant	<b>Wood Fuel</b>	Distillate Fuel Oil	LP Gas (Propane)	Natural Gas Fuel	Coal Fuel
PM <sub>10</sub>	<b>16.6</b>	1.04	0.36	0.63	58
PM <sub>2.5</sub>	<b>13</b>	0.8	0.3	0.6	31
NO <sub>x</sub>	<b>18.3</b>	11.0	12.8	2.66	42
SO <sub>2</sub>	<b>2.08</b>	4.35	<0.01	0.05	110
CO	<b>11.7</b>	3.07	2.92	7.00	48
VOC	<b>1.41</b>	0.44	0.46	0.46	5.7

# Stack Height Considerations



- Good Engineering Practice Stack Height (GEP)  
 $\geq 2.5$  times adjacent  
building height



# Greenhouse Gas (GHG) Rule Applicability



- **EPA Rule - Biogenic Deferral**
  - 3-year deferral of air quality permitting (PSD & TV) applicability
  - Only CO<sub>2</sub> emissions
  - Bioenergy and other biogenic stationary sources (combustion of biologically-based materials)



# Boiler MACT



- EPA Rule - Maximum Achievable Control Technology
- Industrial, Commercial, and Institutional Boilers and Process Heaters and Commercial and Industrial Solid Waste Incineration Units
- Effective March 21, 2011

<b>BOILER MACT</b>	<b>Conditions</b>	<b>Compliance Dates</b>	<b>Initial Notification Dates</b>
<b>Existing and New* Small Boilers</b> ( <b>&lt; 10 MMBtu/hr</b> )	Tune-up every other year  No numeric emission limits	Existing: March 21, 2012  New: May 20, 2011 or upon startup	Existing: September 17, 2011 (startup before May 20, 2011)  New: September 17, 2011 or within 120 days after startup of new source, whichever is later
<b>Existing Large Boilers</b> ( <b>≥ 10 MMBtu/hr</b> )	Tune-up every other year  One-time energy assessment  No numeric emission limits	March 21, 2012 (for tune ups)  March 14, 2014 (for energy assessments)	September 17, 2011 (if startup before May 20, 2011)
<b>New* Large Boilers</b> ( <b>≥ 10 MMBtu/hr</b> )	Tune-up every other year  Numeric emission limit for PM (varies based on size)	May 20, 2011 or upon startup	September 17, 2011 or within 120 days after startup of new source, whichever is later

# Questions



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